Module 11
Cattle Viscera, Carcass, and Liver Disposition

Part IV

While performing carcass inspection, you will be responsible for identifying abnormalities and assuring that sanitary dressing procedures are being carried out. Some of the more common conditions you may see, as well as sanitary dressing requirements, are contained in the following.

The carcass splitting saw, or cleaver, must be sanitized after being used to split a retained carcass or an obviously diseased or contaminated carcass. The responsibility for monitoring this procedure usually rests with the assigned carcass inspector; however, this area of responsibility could vary depending on different plant layouts.

All grubs and any bruised tissue must be removed from the back of the midline before splitting to prevent dragging contamination into the cut surface during splitting.

When the carcass arrives at the carcass inspection station, you should check to see if all bruised tissue has been removed and that only normal tissue remains. Other injuries such as broken bones must also be removed and affected tissue surrounding the injuries must be trimmed back to normal tissue.

All grubs (Hypoderma bovis) and/or the evidence of grubs must be trimmed, leaving only normal tissue.

When abscesses are detected, they must be removed and any tissue contaminated by a draining abscess must be trimmed away. The abscess and all contaminated tissue must be placed in a properly marked container or, as is the case in some plants, in a floor auger designed to remove all inedible and condemned material to the inedible department.

Adhesions, either in the pleura (lining of the thoracic cavity) or in the peritoneum (lining of the abdominal cavity), are frequently seen. Usually the viscera inspector has observed the organ that had adhered to either of these cavities and has indicated, by tagging, the degree of involvement. If the condition is determined to be localized, you would require the rail trimmer to remove *all* evidence of adhesions. If, in your opinion, or in that of the viscera inspector, the adhesions are the result of a generalized condition, or other evidence of disease or infection is present, you would retain the carcass for veterinary disposition.

You will also require the removal of *all* remnants of liver tissue, lung tissue, intestinal tissue, etc. Continual incidents involving the same types of tissue left in the carcass would be indicative of a less than acceptable evisceration procedure and would be considered improper presentation. You should review, or recall, the inspector's reaction to improper presentations, which was covered in detail during the cattle head module.

Swollen joints would usually be associated with an arthritic condition. Most arthritis is the result of an injury and only requires that the affected joint and corresponding lymph nodes be removed and condemned. However if during the removal of affected joints the fluid within the joint is released, all tissue in contact with the fluid must also be trimmed away and condemned.

When more than one joint is involved with arthritis, you would have to consider the possibility that an infection of blood condition may have caused the swelling and that of a generalized condition may exist. In the case of polyarthritis (more than one joint affected with arthritis) you should retain the carcass for veterinarian's disposition.

Several conditions may be seen during the observation and palpation of the kidneys.

One of those conditions is nephritis. Nephritis is an inflammation of the kidney and is usually characterized by swelling, off-color, or abscess. As a general rule nephritis is a secondary cause resulting from other disease conditions within the animal. When the urinary tract, bladder, and other organs show signs of involvement, the carcass should be retained (including the viscera if available) for the veterinarian to make a final disposition. If the nephritic condition is considered localized or chronic, the kidney is removed and condemned, and the carcass passed.

At times, you will see cystic kidneys, or kidneys with cystic lesions. FO handles these by allowing kidneys with only a few lesions to be trimmed, with the remaining portion of the kidney passed for food. Those kidneys showing more than a slight number of cysts are to be condemned.

Kidneys with marked or extensive lymphocytic infiltration (white spots or streaks) are to be condemned. Those with slight streaks or a few spots may be passed without restriction.

One of the most common improper presentations that occur at the carcass inspection station is the failure to expose the kidneys properly. It is too easy for the inspector to reach into the carcass and "pop" the kidney rather than require that the plant employee do so. You *must* refrain from this practice. When the

kidneys are *not* properly presented for inspection, you should delay inspection until proper presentation is accomplished.

Another common improper presentation is missing kidneys. Now there may be good reasons why one or both kidneys are missing but you must make a concerted effort to find them. They are an integral part of the carcass inspection procedure that determines wholesomeness.

NOTE: Kidneys may be removed as part of the evisceration procedure. If this is the case, the plant must be consistent.

Frequently you will observe a condition on or near the brisket region, usually in the fat just adjacent to the brisket or breastbone, that is referred to as "cheesy brisket." This condition, really called pre-sternal calcification, and is usually caused by the rubbing or bumping of the animal's breast against the feed bunker. The significance is slight as far as the overall acceptability of the carcass is concerned. The condition would be removed by trimming, and unless other conditions are present, the carcass passed without restriction.

A condition that at times may appear to be serious but actually is not, is fat necrosis. There may be a chalky white substance throughout the kidney fat and on up through the renal area. There are time when the necrosis may appear imbedded or inside the fat. The fat in the latter case is usually transparent or translucent, allowing the yellowish necrosis to be visible.

In either case, the fat necrosis should be removed by trimming and, provided there are no other conditions present, the carcass passed without restriction.

There are several other conditions that may be observed at the rail station that have been previously described.

For example: Cysticercosis (observed in muscle tissue)
Eosinophilic myositis (observed in muscle tissue)
Tuberculosis (palpated in lymph nodes)

Your reaction the these three conditions when palpated or observed would be to retain the entire carcass, head, and viscera for the veterinarian to make a final disposition.

SPECIAL NOTE: Cattle Clean Meat Program

If any fecal, ingesta, or milk contamination is observed on carcasses at rail inspection, the rail inspector will stop the line. The establishment will re-examine and rework the entire carcass. After the establishment has trimmed all fecal, ingesta, and milk contamination, the carcass will be re-presented to the rail

inspector for reinspection. If officially approved, the establishment may provide a short rail-out loop in lieu of stopping the line.

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SUPPLEMENT - PART IV
[Carcass inspection, common abnormalities, and sanitary dressing]

Matching - Part I

Place the appropriate letter(s) from the right hand column in the blanks in the left hand column. *Answers may be used more than once.*

1. _____ Carcasses not allowed to contact prior to
2. _____ Grubs, bruises, pus, abscess are required
3. _____ Spermatic cord, slight adhesions, pizzle are to be
4. _____ Milk is required
5. _____ Lactating udders are to be
6. _____ Fecal material or urine is
7. _____ Vaccination lesions should be
8. _____ All pathological or abnormal conditions
9. _____ Kidneys are required to be
10. _____ Liver or lung fragments are required to be
11. _____ Grease or ingesta is required
12. _____ Arthritis, broken ribs, fractures are required to be

a. removed
b. inspected for possible retention of carcass and parts
c. exposed for inspection
d. trimming carcass
e. to be trimmed
f. washing

Matching - Part II

1. ____ Slight lymphocytic infiltration of kidneys
2. ____ More than slight lymphocytic infiltration of kidneys
3. ____ Slight cystic kidney may be *trimmed* and
4. ____ More than slight cystic conditions of the kidney
5. ____ New shrouds must be
6. ____ Each carcass entering cooler must have
7. ____ Shroud pins must be
8. ____ Used shrouds must be

a. washed and thoroughly rinsed after each use
b. condemned
c. passed for food
d. at least one brand on each half of carcass
e. washed before use to remove loose material and dirt
f. cleaned before each use

Shrouds may be soaked in a wetting solution: Circle the letter opposite those solutions which are acceptable.

THEN

Write the letter of each acceptable solution opposite its control.

Solutions	***Control Limits***
a. Clean water	_____ < 20 ppm
b. Common salt	_____ <10%
c. Chlorine	_____ <1%
d. Sodium hypochlorite	_____ <20° salometer strength
e. Acetic acid	_____ <200 ppm
f. Borax	_____ No limit

Write out the complete carcass inspection procedures used with separate carcass inspection station on a continuously moving line.

List fourteen instances of improper presentation that might detect at the *rail* inspection station.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

12.

13.

14.

Name seven abnormal conditions that the carcass inspector may detect and require to be removed.

1.

2.

3.

4.

5.

6.

7.

Utilizing the previously covered information and/or Guideline #6, supply the following information:

1. Arthritis
    a. Usual site of infection
    _____

    _____

    b. Appearance
    _____

    _____

2. Polyarthritis
    a. Usual site of infection
    _____

    _____

    b. Appearance
    _____

    _____

3. Septicemia
    a. Usual sites of lesions
    _____
    _____
    b. Appearance
    _____
    _____
4. Anasarca
    a. What tissues involved to indicate
    _____
    _____
    b. Appearance of carcass
    _____
    _____
5. Cystic kidney
    a. Usual site involved
    _____
    _____
    b. Appearance
    _____
    _____
6. Lymphocytic infiltration of kidney
    a. Usual location
    _____
    _____

b. Appearance

_____

_____

7. Hypoderma bovis (grubs)

a. Usual site of infestation

_____

_____

b. Appearance

_____

_____

8. Adhesions

a. Appearance

_____

_____

9. Mastitis

a. Usual site of infection

_____

_____

b. Appearance

_____

_____

10. Metritis

a. Usual site of infection

_____

_____

b. Appearance

_____

_____

11. Nephritis

a. Usual site of infection

_____

_____

b. Appearance

_____

_____

12. Uremia

a. Areas of involvement

_____

_____

b. Appearance

_____

_____

13. Pyemia

a. Areas of infection

_____

_____

b. Appearance

_____

_____

14. Peritonitis

    a. Usual site of infection

    _____

    _____

    b. Appearance

    _____

    _____